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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,068	07/15/2003	Kai H. Chang	Chang 6-17-28	7129

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EXAMINER

HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/620,068

Applicant(s)

CHANG ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 5, it is unclear if "to from" should be interpreted as "to form" or something else.

Claims 4, 5, and 7 indicate that the claims "further comprise" various things. These things are not understood as to whether they are actually "further" steps, they do not appear to be. For example claim 4 requires a "further" drawing step. That would mean that there are two drawing steps, the first mentioned one and the further one. It is not understood how one can draw a fiber from the core, and also have a further drawing of the overlaid preform.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims ^{1-6, 8-9}~~1-17~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over Backer 5180411 in view of Tuminaro 6496627.

**A method for making optical fiber, the method comprising the steps of:
forming a glass core rod by soot deposition, the glass core rod having a core
region surrounded by a cladding region,**

See Backer at col. 9, lines 34-42.

dehydrating the glass core rod;

See Backer at col. 13, lines 24-40.

consolidating the glass core rod to form an optical fiber preform;

See Backer at col. 10, lines 39-40.

drawing fiber from the optical fiber preform;

See Backer at figure 3.

and exposing the drawn optical fiber to an atmosphere containing deuterium at room temperature.

Backer does not teach this. Tuminaro discloses that deuterium exposure results in improved long term signal attenuation performance. See col. 2, lines 47-60, and col. 3, line 40 to col. 4, line 9. It would have been obvious to improve the long term performance of the Backer fiber, by exposing it to deuterium as disclosed by Tuminaro. Col. 17 lines 56-59 discloses the room temperature exposure.

Claim 2 is in a format that is not consistent with any format that is sanctioned by the MPEP or the courts. There are various ways to interpret the claim – but the Office must use the broadest reasonable interpretation.

The PTO gives a disputed claim term its broadest reasonable interpretation during patent prosecution. Hyatt, 211 F.3d at 1372. The “broadest reasonable interpretation” rule recognizes that “before a patent is granted the claims are readily

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amended as part of the examination process.” Burlington Indus. v. Quigg, 822 F.2d 1581, 1583 (Fed. Cir. 1987). Thus, a patent applicant has the opportunity and responsibility to remove any ambiguity in claim term meaning by amending the application. In re Prater, 415 F.2d 1393, 1404-05 (CCPA 1969). Additionally, the broadest reasonable interpretation rule “serves the public interest by reducing the possibility that claims, finally allowed, will be given broader scope than is justified.” In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364 (Fed. Cir. 2004) (quoting In re Yamamoto, 740 F.2d 1569, 1571-72 (Fed. Cir. 1984)).

It is deemed that the broadest reasonable interpretation is: The method as recited in claim 1, wherein the exposing step further comprises one of **the group comprising**: exposing the drawn optical fiber to a deuterium atmosphere having a partial pressure of approximately 0.01 atmospheres of deuterium at room temperature for approximately 6 days, and exposing the drawn optical fiber to a deuterium atmosphere having a partial pressure of approximately 0.05 atmospheres of deuterium at room temperature for approximately 1.5 days.

(another reasonable interpretation would be: The method as recited in claim 1, wherein the exposing step further comprises one of **the group consisting**: exposing the drawn optical fiber to a deuterium atmosphere having a partial pressure of approximately 0.01 atmospheres of deuterium at room temperature for approximately 6 days, and exposing the drawn optical fiber to a deuterium atmosphere having a partial pressure of approximately 0.05 atmospheres of deuterium at room temperature for approximately 1.5 days.

Since “comprising” is broader than “consisting” the Office MUST use the broader of the two)

Based on the above broadest reasonable interpretation: since the group is comprising in nature, it is open to other members – including the exposure of Tuminaro. Clearly the Tuminaro reads on the exposure of Tuminaro.

Claim 3: Since Tuminaro does the same thing that applicant does (for substantially the same reason – to cure defects) one would expect substantially the same result.

Claim 8: See Backer, col. 9. lines 34-38.

Claims 4-6: see col. 9, lines 47-48 of Backer: the additional overcoating cladding soot is the same thing as “overclad”. The overclad would be dehydrated and consolidated the same time the rest of preform is dehydrated and consolidated.

Claim 9: the “thereafter” limitation is not given any patentable weight. It is deemed that patents only cover the past and present – not the future. No one has the ability to predict the future. Alternatively, it is deemed that “the aging loss” is interpreted as “an aging loss” It is deemed that an aging loss of an aging of 1 microsecond would clearly be less than 0.04 db/km. As to the transmission loss: Backer does not disclose the claimed loss. It would have been obvious to make perform the Backer/Tuminaro method, so that the fiber has the lowest possible transmission loss and the loss possible aging loss increase. It is noted that any evidence or argument that indicates that one of ordinary skill would not know how to have the claimed loss and loss increase, may be used as evidence in a rejection that the present invention is not enable, or that the claim lack a critical step.

Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oyobe 5262365 in view of Tuminaro 6496627 and Baumgart 4820322.

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Oyobe discloses the invention except for the deuterium treatment and the overcladding. See Oyobe, col. 16, lines 1- 40. The heat treatment is deemed to be a dehydration (compare to Oyobe col. 12, lines 40-48.)

Tuminaro discloses that deuterium exposure results in improved long term signal attenuation performance. See col. 2, lines 47-60, and col, 3, line 40 to col. 4, line 9. It would have been obvious to improve the long term performance of the Oyobe fiber by exposing it to deuterium as disclosed by Tuminaro.

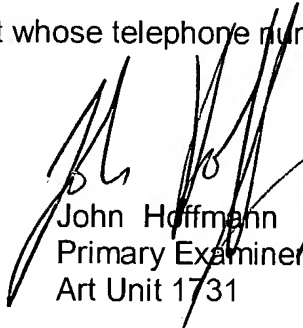
Baumgart discloses in col. 1 that one can make more fiber by overcladding a preform made by MCVD. That is, one can scale up an MCVD process - but that such requires overcladding with a tube. It would have been obvious to scale up the Oyobe process to make the preforms large 1 (as taught by Baumgart, and including overcladding with a tube) so that one can increase productivity.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1700.


John Hoffmann
Primary Examiner
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12-16-09